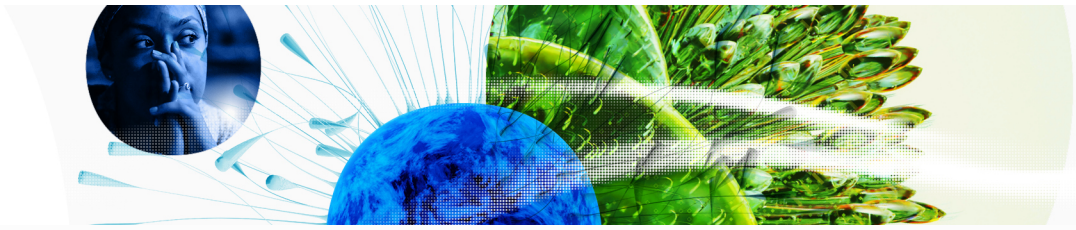
Global Innovation Index 2023



The Global Innovation Index (GII) **ranks world economies according to their innovation capabilities.**

Consisting of **roughly 80 indicators**, grouped into innovation inputs and outputs, the GII **aims to capture the multi-dimensional facets of innovation**.

Argentina ranking in the Global Innovation Index 2023

> Argentina ranks 73rd among the 132 economies featured in the GII 2023.

> Argentina ranks 18th among the 33 upper-middle-income group economies.

> Argentina ranks 6th among the 19 economies in Latin America and the Caribbean.

> Argentina GII Ranking (2020-2023)

The table shows the rankings of Argentina over the past four years. Data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings. The statistical confidence interval for the ranking of Argentina in the GII 2023 is between ranks 65 and 79.

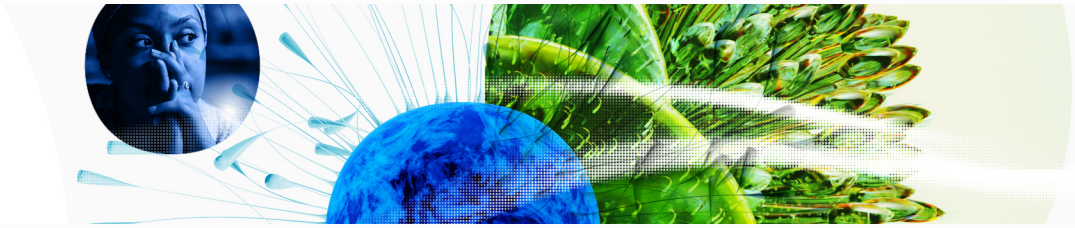
	GII Position	Innovation Inputs	Innovation Outputs
2020	80th	80th	73rd
2021	73rd	77th	71st
2022	69th	77th	62nd
2023	73rd	84th	59th

Argentina performs better in innovation outputs than innovation inputs in 2023.

This year Argentina ranks 84th in innovation inputs. This position is lower than last year.

Argentina ranks 59th in innovation outputs. This position is higher than last year.

Global Innovation Index 2023

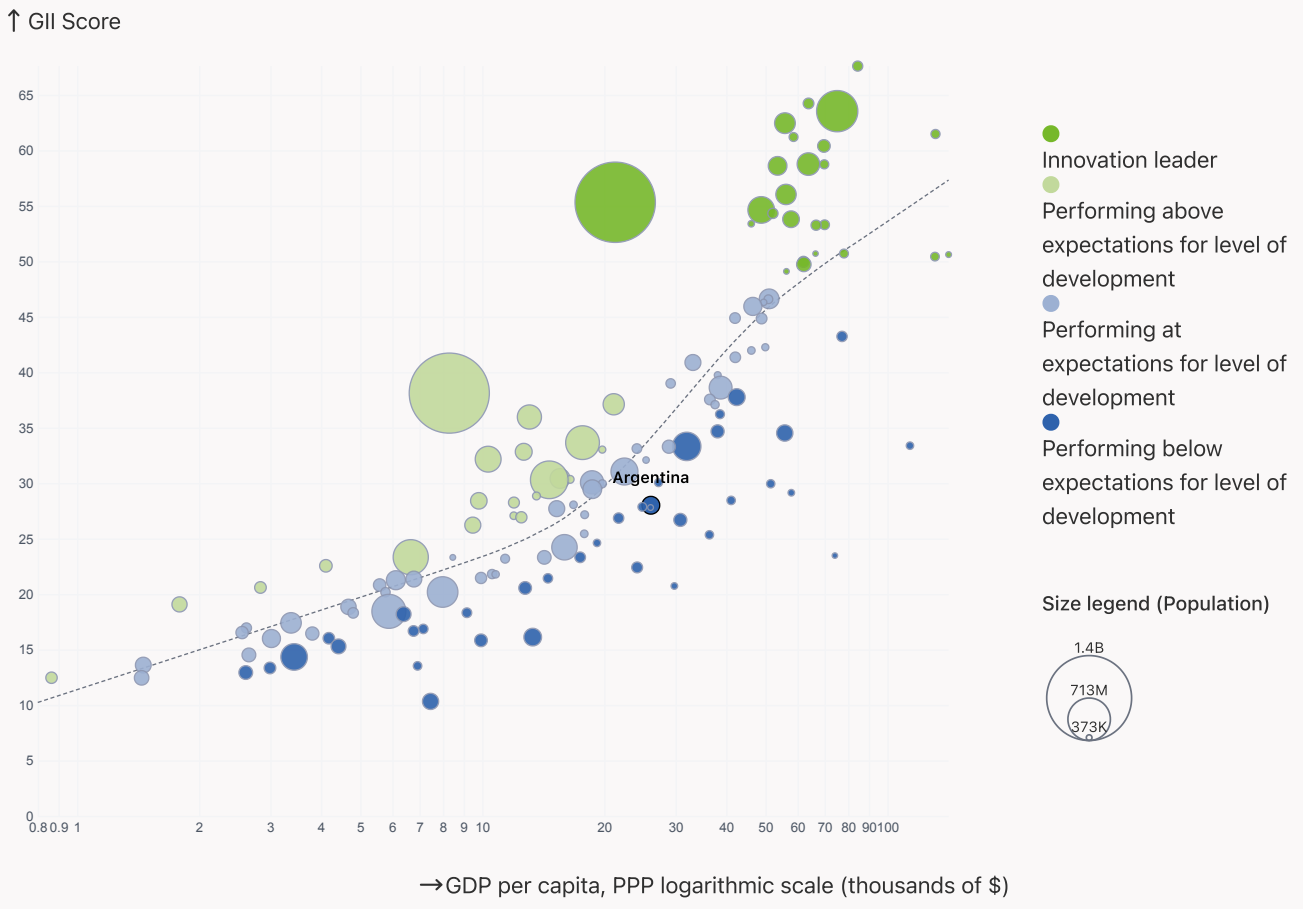


→ Expected vs. observed innovation performance

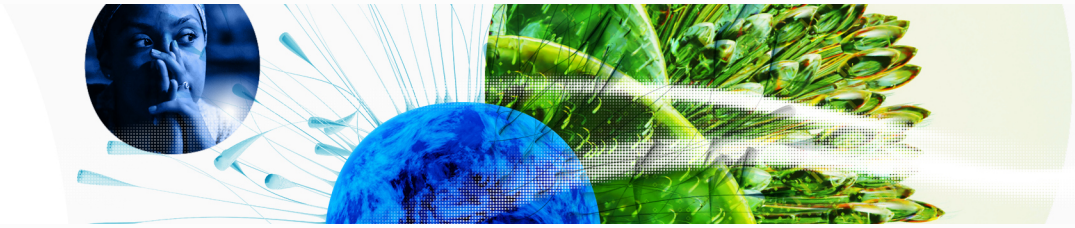
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.

> Relative to GDP, Argentina's performance is below expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2023

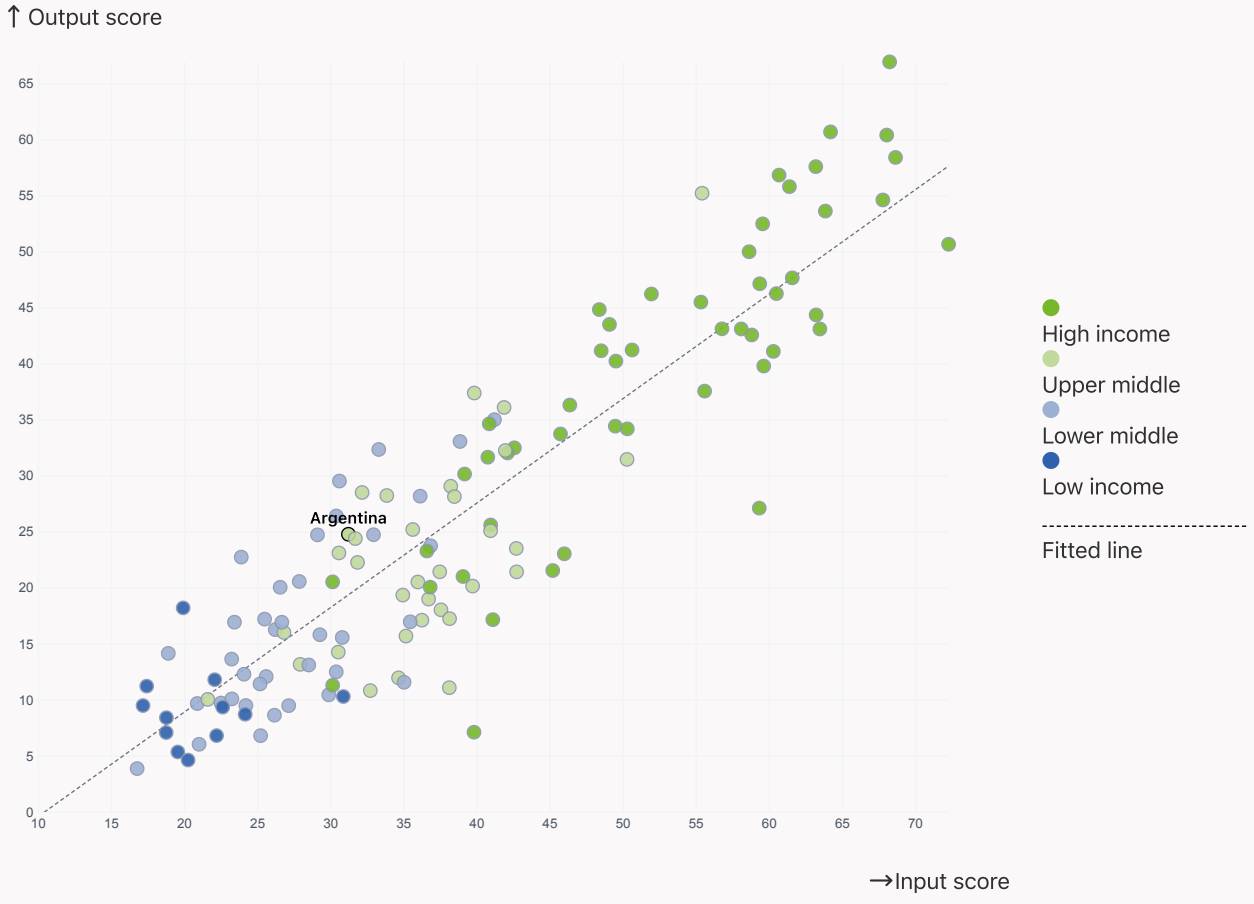


→ Effectively translating innovation investments into innovation outputs

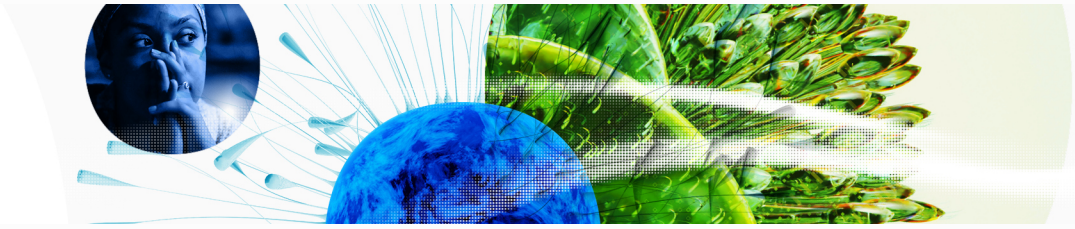
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

> Argentina produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

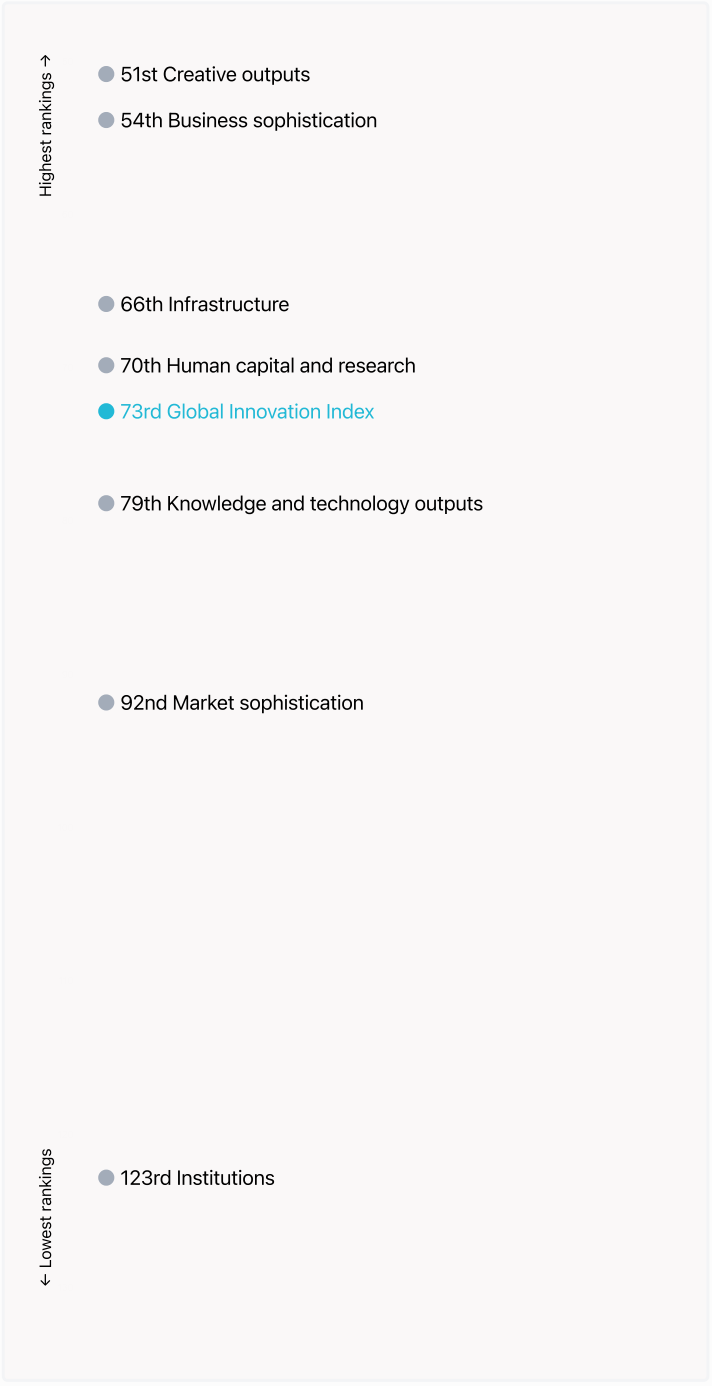


Global Innovation Index 2023



→ Overview of Argentina's rankings in the seven areas of the GII in 2023

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Argentina are those that rank above the GII (shown in blue) and the weakest are those that rank below.



> Highest rankings

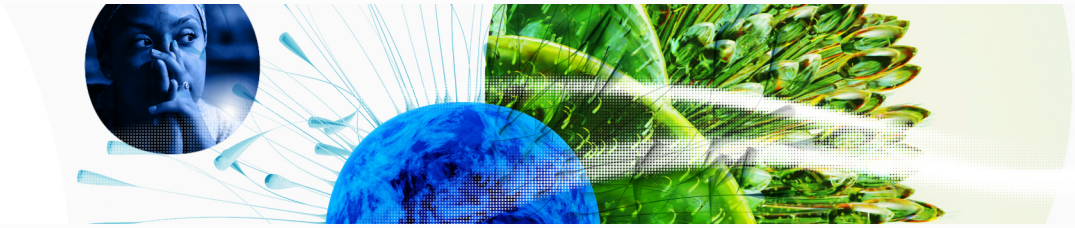
Argentina ranks highest in Creative outputs (51st), Business sophistication (54th), Infrastructure (66th) and Human capital and research (70th).

> Lowest rankings

Argentina ranks lowest in Institutions (123rd), Market sophistication (92nd) and Knowledge and technology outputs (79th).

The full WIPO Intellectual Property Statistics profile for Argentina can be found on this link.

Global Innovation Index 2023



→ Benchmark of Argentina against other country groupings for each of the seven areas of the GII Index

The charts shows the relative position of Argentina (blue bar) against other country groupings (grey bars), for each of the seven areas of the GII Index.

> Upper-Middle-Income economies

Argentina performs below the upper-middle-income group average in Knowledge and technology outputs, Market sophistication, Infrastructure, Institutions.

> Latin America And The Caribbean

Argentina performs above the regional average in Knowledge and technology outputs, Creative outputs, Business sophistication, Human capital and research, Infrastructure.

Knowledge and technology outputs

- Top 10 | Score: 58.96
- Upper middle income | Score: 22.36
- Argentina | Score: 19.24
- LCN | Score: 17.14

Creative outputs

- Top 10 | 56.09
- Argentina | 30.27
- Upper middle income | 23.16
- LCN | 18.91

Business sophistication

- Top 10 | 64.39
- Argentina | 30.28
- Upper middle income | 29.27
- LCN | 26.15

Market sophistication

- Top 10 | 61.93
- Upper middle income | 35.45
- LCN | 29.74
- Argentina | 25.21

Human capital and research

- Top 10 | 60.28
- Argentina | 29.97
- Upper middle income | 29.68
- LCN | 24.92

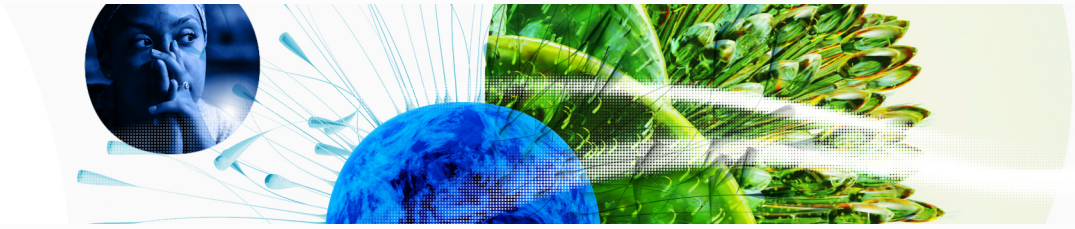
Infrastructure

- Top 10 | 62.83
- Upper middle income | 40.40
- Argentina | 39.85
- LCN | 35.88

Institutions

- Top 10 | 79.85
- Upper middle income | 47.71
- LCN | 41.12
- Argentina | 30.93

Global Innovation Index 2023



→ Innovation strengths and weaknesses in Argentina

The table below gives an overview of the indicator strengths and weaknesses of Argentina in the GII 2023.

> Argentina's main innovation strengths are **Tertiary enrolment, % gross** (rank 5), **Intellectual property payments, % total trade** (rank 12) and **National feature films/mn pop. 15-69** (rank 13).

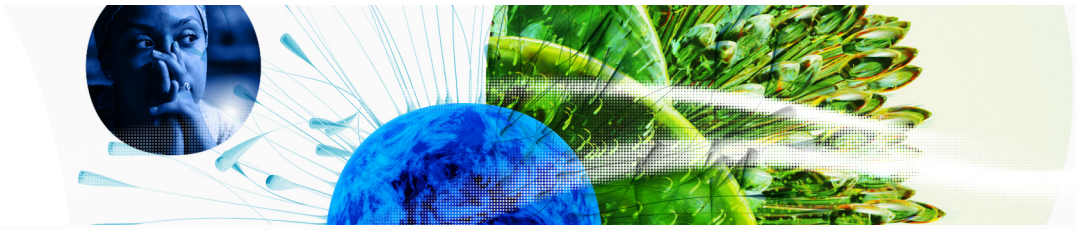
Strengths

Rank	Code	Indicator name
5	2.2.1	Tertiary enrolment, % gross
12	5.3.1	Intellectual property payments, % total trade
13	7.2.2	National feature films/mn pop. 15-69
13	2.1.3	School life expectancy, years
22	5.3.2	High-tech imports, % total trade
23	7.2.1	Cultural and creative services exports, % total trade
28	4.3.3	Domestic market scale, bn PPP$
29	2.3.4	QS university ranking, top 3
30	5.3.3	ICT services imports, % total trade
31	7.1.2	Trademarks by origin/bn PPP$ GDP

Weaknesses

Rank	Code	Indicator name
129	1.3.1	Policies for doing business
124	6.2.1	Labor productivity growth, %
119	1.2.3	Cost of redundancy dismissal
116	4.1.2	Domestic credit to private sector, % GDP
101	2.2.2	Graduates in science and engineering, %
83	4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP
75	4.1.1	Finance for startups and scaleups
69	4.2.1	Market capitalization, % GDP
69	2.1.4	PISA scales in reading, maths and science
40	2.3.3	Global corporate R&D investors, top 3, mn US$

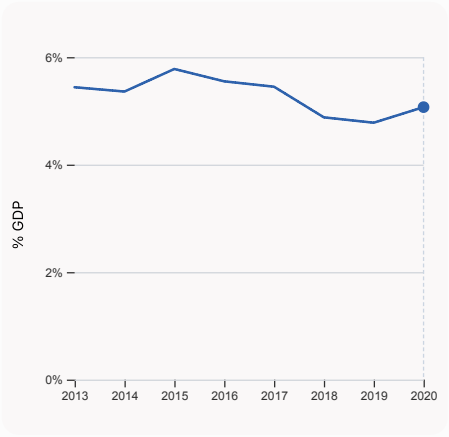
Global Innovation Index 2023



→ Argentina's innovation system

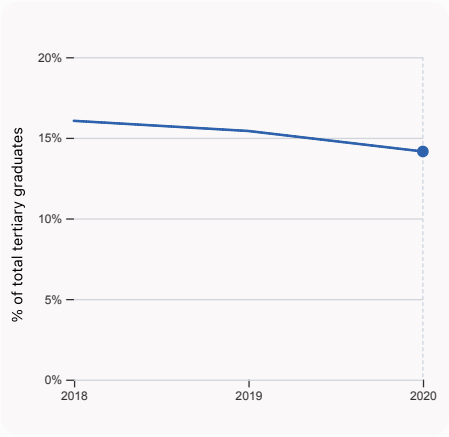
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Argentina



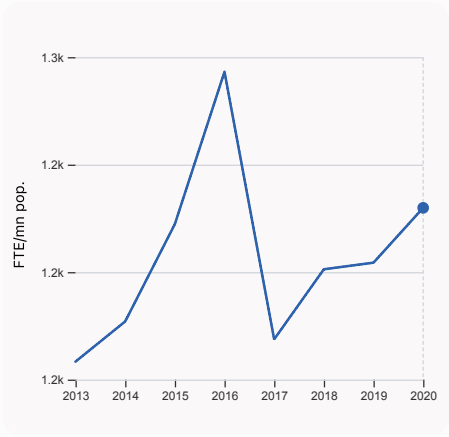
2.1.1 Expenditure on education, % GDP

was equal to 5.07% GDP in 2020, up by 0.29 percentage points from the year prior – and equivalent to an indicator rank of 40.



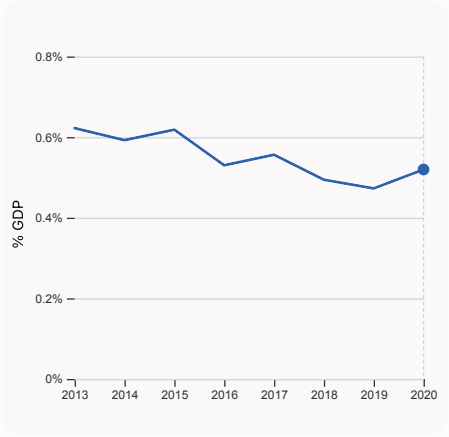
2.2.2 Graduates in science and engineering, %

was equal to 14.15% of total tertiary graduates in 2020, down by 1.27 percentage points from the year prior – and equivalent to an indicator rank of 101.



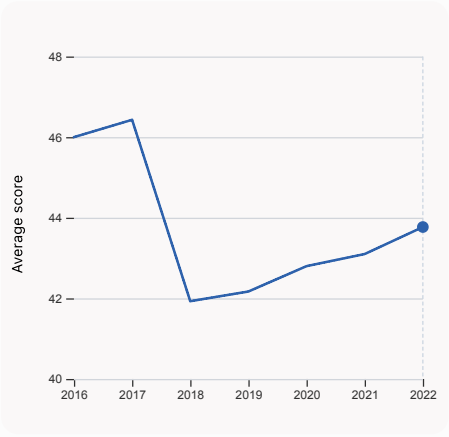
2.3.1 Researchers, FTE/mn pop.

was equal to 1,231.96 FTE/mn pop. in 2020, up by 0.83% from the year prior – and equivalent to an indicator rank of 50.



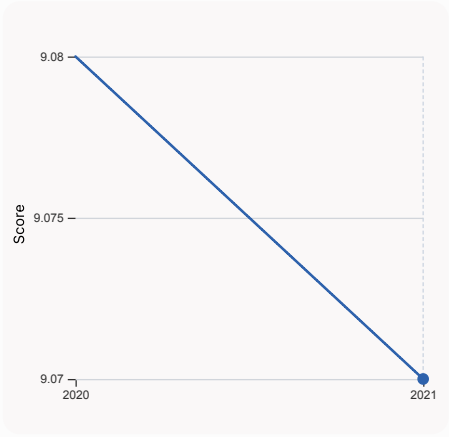
2.3.2 Gross expenditure on R&D, % GDP

was equal to 0.52% GDP in 2020, up by 0.047 percentage points from the year prior – and equivalent to an indicator rank of 59.



2.3.4 QS university ranking, top 3

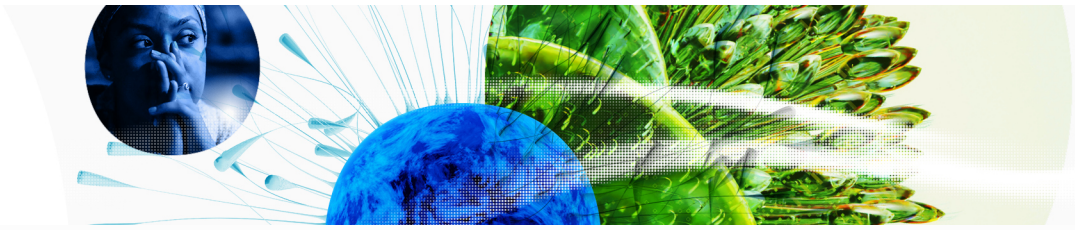
was equal to an average score of 43.77 for the top 3 universities in 2022, up by 1.55% from the year prior – and equivalent to an indicator rank of 29.

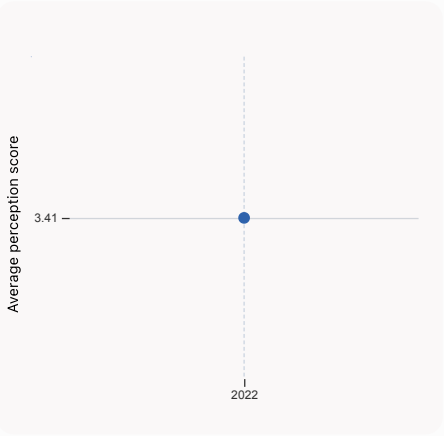


3.1.1 ICT access

was equal to a score of 9.07 in 2021, down by 0.11% from the year prior – and equivalent to an indicator rank of 45.

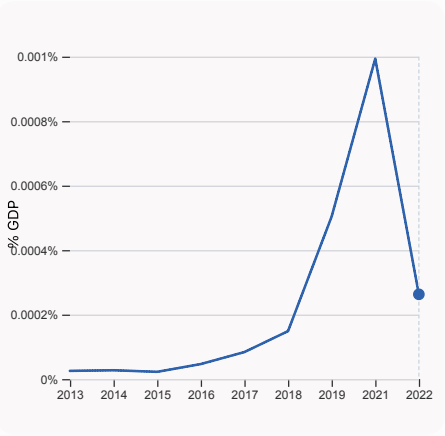
Global Innovation Index 2023





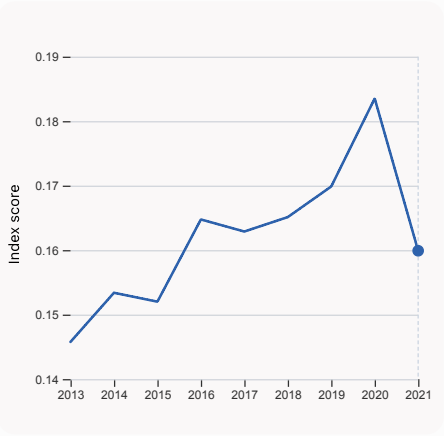
4.1.1 Finance for startups and scaleups

was equal to an average perception score of 3.41 in 2022, equivalent to an indicator rank of 75.



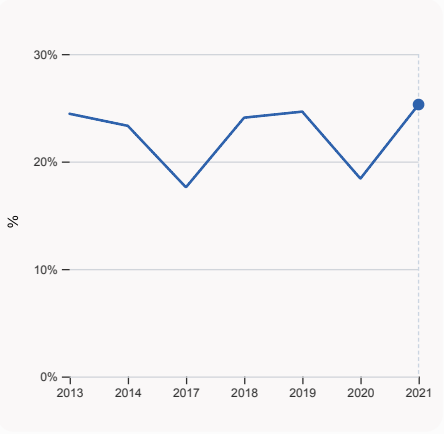
4.2.4 VC received, value, % GDP

was equal to 0.00026% GDP in 2022, down by 0.00073 percentage points from the year prior – and equivalent to an indicator rank of 59.



4.3.2 Domestic industry diversification

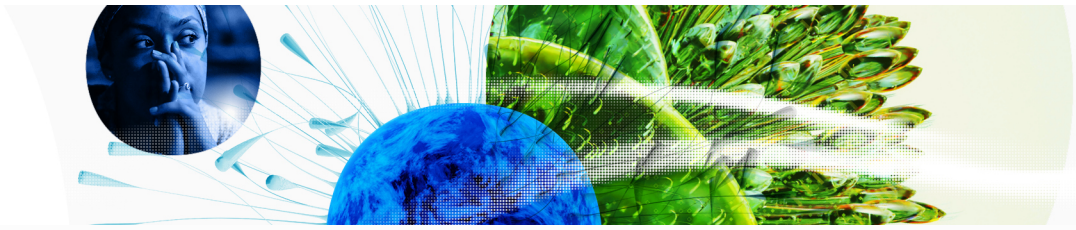
was equal to an index score of 0.16 in 2021, down by 12.86% from the year prior – and equivalent to an indicator rank of 53.



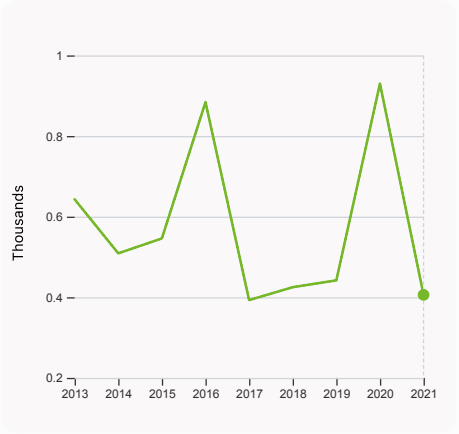
5.1.1 Knowledge-intensive employment, %

was equal to 25.3% in 2021, up by 6.89 percentage points from the year prior – and equivalent to an indicator rank of 54.

Global Innovation Index 2023

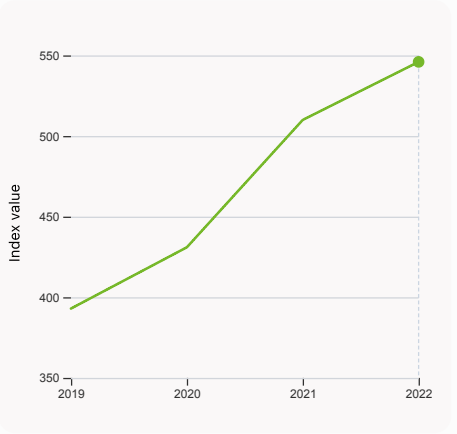


> Innovation outputs in Argentina



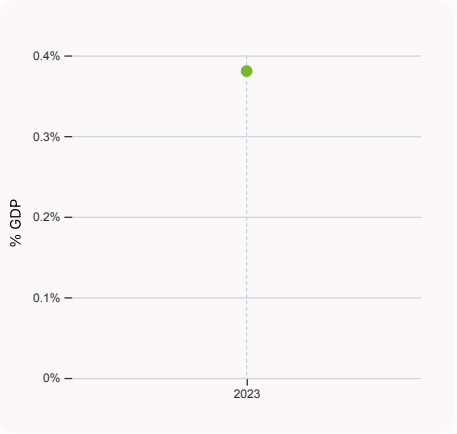
6.1.1 Patents by origin

was equal to 0.41 Thousands in 2021, down by 56.34% from the year prior – and equivalent to an indicator rank of 87.



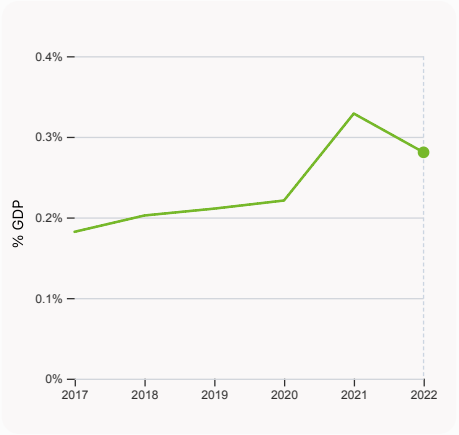
6.1.5 Citable documents H-index

was equal to an index value of 546 in 2022, up by 7.059% from the year prior – and equivalent to an indicator rank of 36.



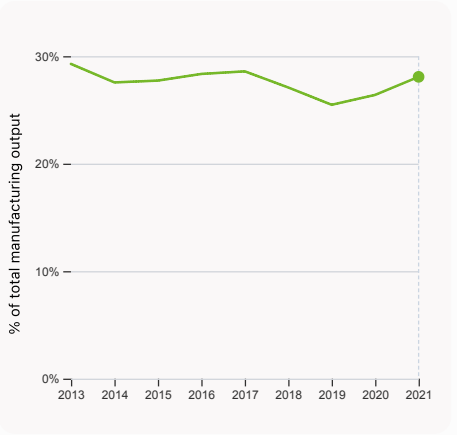
6.2.2 Unicorn valuation, % GDP

was equal to 0.381 % GDP in 2023 – and equivalent to an indicator rank of 41.



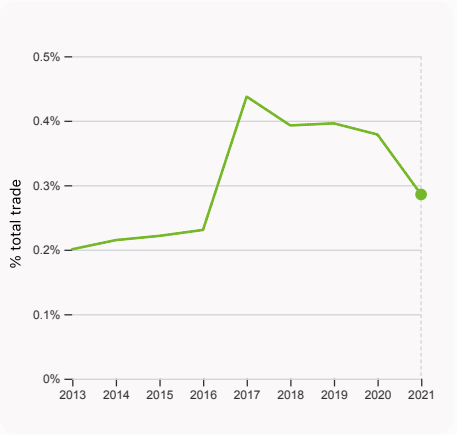
6.2.3 Software spending, % GDP

was equal to 0.281% GDP in 2022, down by 0.048 percentage points from the year prior – and equivalent to an indicator rank of 47.



6.2.4 High-tech manufacturing, %

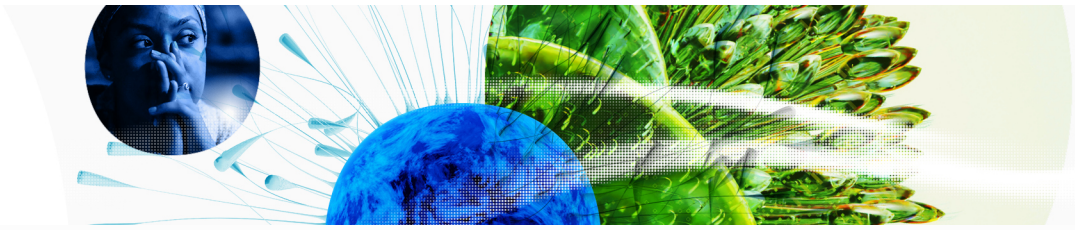
was equal to 28.08% of total manufacturing output in 2021, up by 1.68 percentage points from the year prior – and equivalent to an indicator rank of 45.

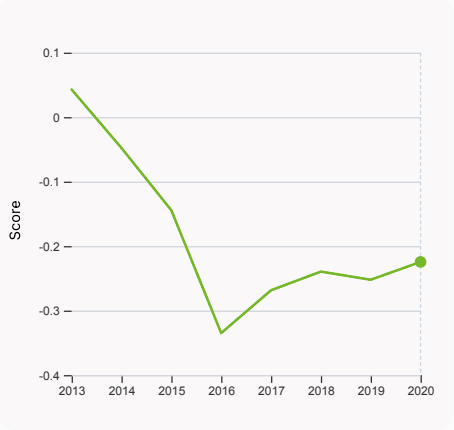


6.3.1 Intellectual property receipts, % total trade

was equal to 0.286% total trade in 2021, down by 0.093 percentage points from the year prior – and equivalent to an indicator rank of 31.

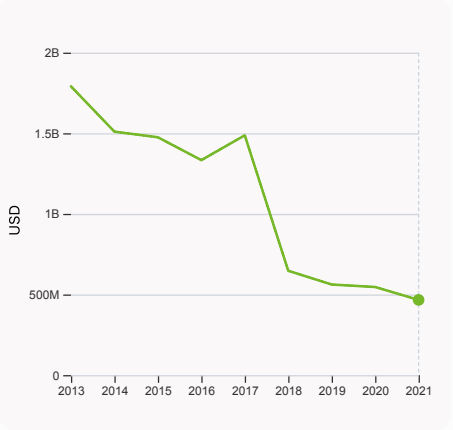
Global Innovation Index 2023





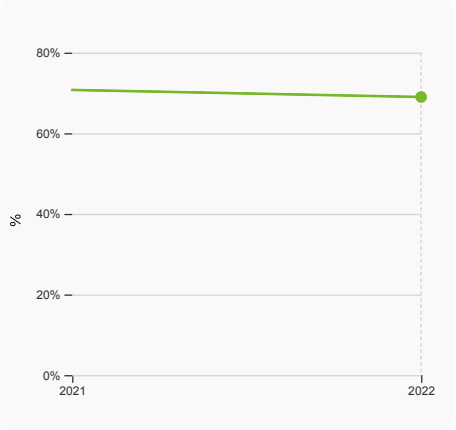
6.3.2 Production and export complexity

was equal to a score of -0.224 in 2020, up by 10.96% from the year prior – and equivalent to an indicator rank of 74.



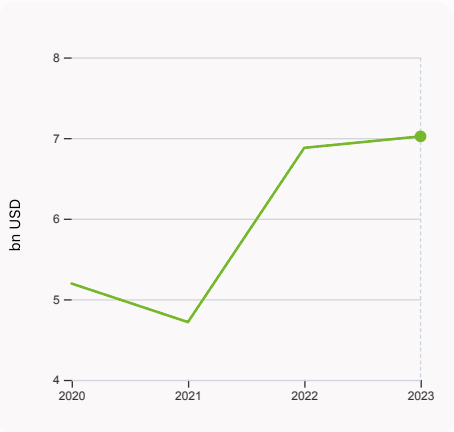
6.3.3 High-tech exports

was equal to 466,425,801 USD in 2021, down by 14.64% from the year prior – and equivalent to an indicator rank of 86.



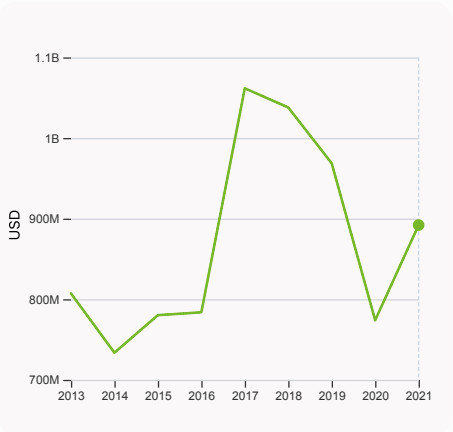
7.1.1 Intangible asset intensity, top 15, %

was equal to 69% in 2022, down by 1.75 percentage points from the year prior – and equivalent to an indicator rank of 21.



7.1.3 Global brand value, top 5,000

was equal to 7.021 bn USD in 2023, up by 2.065% from the year prior – and equivalent to an indicator rank of 54.



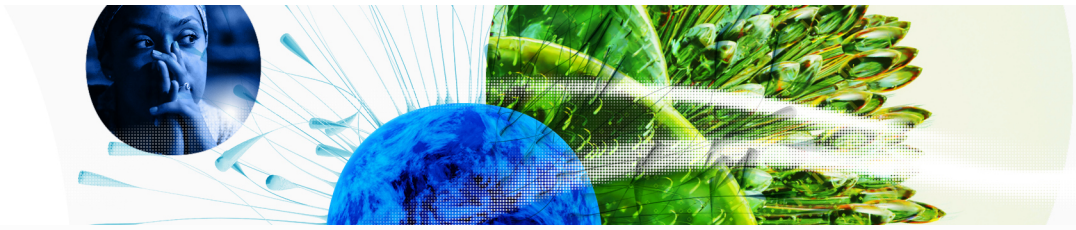
7.2.1 Cultural and creative services exports

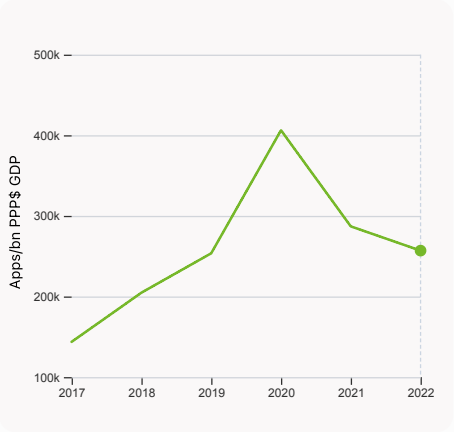
was equal to 892,033,000 USD in 2021, up by 15.25% from the year prior – and equivalent to an indicator rank of 23.

7.2.2 National feature films/mn pop. 15-69

was equal to 6.9 films/mn pop. 15–69 in 2021, up by 227.014% from the year prior – and equivalent to an indicator rank of 13.

Global Innovation Index 2023

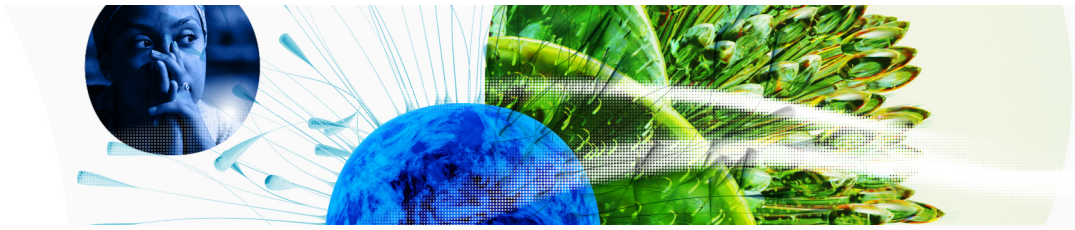




7.3.4 Mobile app creation/bn PPP$ GDP

was equal to 256,906.2 Apps/bn PPP$ GDP in 2022, down by 10.48% from the year prior – and equivalent to an indicator rank of 57.

Global Innovation Index 2023



→ Argentina's innovation top performers

> 2.3.4 QS university ranking of Argentina's top universities

Rank	University	Score
67	UNIVERSIDAD DE BUENOS AIRES (UBA)	68.90
323	PONTIFICIA UNIVERSIDAD CATOLICA ARGENTINA	33.30
390	UNIVERSIDAD DE PALERMO (UP)	29.10

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2023).
Note: QS Quacquarelli Symonds Ltd annually assesses over 1,200 universities across the globe and scores them between [0,100]. Ranks can represent a single value "x", a tie "x=" or a range "x-y".

> 6.2.2 Top Unicorn Companies in Argentina

Rank	Unicorn Company	Industry	City	Valuation, bn USD
1	UALA	Fintech	Buenos Aires	2

Source: CBInsights, Tracker – The Complete List of Unicorn Companies: https://www.cbinsights.com/research-unicorn-companies

> 7.1.1 Top 15 intangible-asset intensive companies in Argentina

Rank	Firm	Intensity, %
1	MERCADOLIBRE INC	93.10
2	CABLEVISION HOLDING SA	202.06
3	CORP AMERICA AIRPORTS SA	136.97

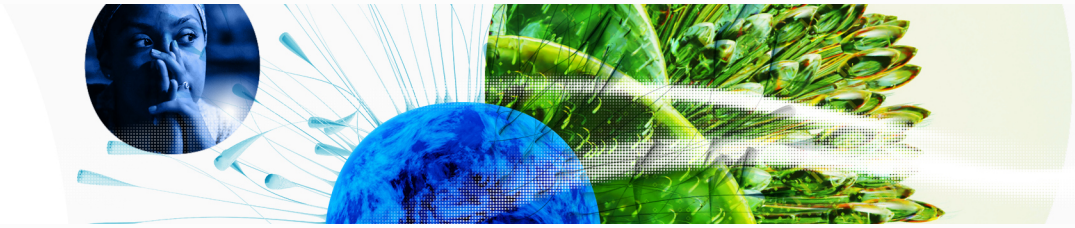
Source: Brand Finance (https://brandirectory.com/reports/gift-2022).
Note: Brand Finance only provides within economy ranks.

> 7.1.3 Top 5,000 companies in Argentina with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	MERCADOLIBRE	Retail	3,745.7
2	GLOBANT	IT Services	1,215.0
3	YPF	Oil & Gas	601.3

Source: Brand Finance (https://brandirectory.com).
Note: Rank corresponds to within economy ranks.

Global Innovation Index 2023



Argentina

GII 2023 rank **73**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
59	84	Upper middle	LCN	45.5	1,207.2	26,073.8

	Score / Value	Rank	
Institutions	**30.9**	**123**	◇
1.1 Institutional environment	**36.0**	**89**	
1.1.1 Operational stability for businesses*	45.1	81	
1.1.2 Government effectiveness*	26.9	92	
1.2 Regulatory environment	**40.9**	**118**	◇
1.2.1 Regulatory quality*	26.1	106	◇
1.2.2 Rule of law*	26.2	91	
1.2.3 Cost of redundancy dismissal	30.3	119	○ ◇
1.3 Business environment	**15.8**	**126**	◇
1.3.1 Policies for doing business†	0.0	129	○ ◇
1.3.2 Entrepreneurship policies and culture†	31.7	56	
Human capital and research	**30.0**	**70**	
2.1 Education	**43.7**	**84**	
2.1.1 Expenditure on education, % GDP	5.1	40	
2.1.2 Government funding/pupil, secondary, % GDP/cap	17.6	63	
2.1.3 School life expectancy, years	18.1	13	●
2.1.4 PISA scales in reading, maths and science	395.0	69	○
2.1.5 Pupil-teacher ratio, secondary	n/a	n/a	
2.2 Tertiary education	**29.6**	**69**	
2.2.1 Tertiary enrolment, % gross	99.2	5	●
2.2.2 Graduates in science and engineering, %	14.1	101	○ ◇
2.2.3 Tertiary inbound mobility, %	3.5	60	
2.3 Research and development (R&D)	**16.5**	**48**	
2.3.1 Researchers, FTE/mn pop.	1,232.0	50	
2.3.2 Gross expenditure on R&D, % GDP	0.5	59	
2.3.3 Global corporate R&D investors, top 3, mn US$	0.0	40	○ ◇
2.3.4 QS university ranking, top 3*	44.3	29	●
Infrastructure	**39.9**	**66**	
3.1 Information and communication technologies (ICTs)	**74.8**	**50**	
3.1.1 ICT access*	86.1	45	
3.1.2 ICT use*	70.4	70	
3.1.3 Government's online service*	78.9	38	
3.1.4 E-participation*	64.0	51	
3.2 General infrastructure	**21.1**	**87**	
3.2.1 Electricity output, GWh/mn pop.	3,290.0	62	
3.2.2 Logistics performance*	31.8	71	
3.2.3 Gross capital formation, % GDP	20.9	89	
3.3 Ecological sustainability	**23.6**	**67**	
3.3.1 GDP/unit of energy use	10.4	61	
3.3.2 Environmental performance*	37.6	68	
3.3.3 ISO 14001 environment/bn PPP$ GDP	1.2	59	
Market sophistication	**25.2**	**92**	◇
4.1 Credit	**14.7**	**101**	
4.1.1 Finance for startups and scaleups†	25.3	75	○
4.1.2 Domestic credit to private sector, % GDP	16.0	116	○ ◇
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**4.2**	**85**	
4.2.1 Market capitalization, % GDP	11.5	69	○
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	0.0	83	○
4.2.3 VC recipients, deals/bn PPP$ GDP	0.0	83	
4.2.4 VC received, value, % GDP	0.0	59	
4.3 Trade, diversification, and market scale	**56.8**	**74**	
4.3.1 Applied tariff rate, weighted avg., %	6.9	101	◇
4.3.2 Domestic industry diversification	88.9	53	
4.3.3 Domestic market scale, bn PPP$	1,207.2	28	●

	Score / Value	Rank	
Business sophistication	**30.3**	**54**	
5.1 Knowledge workers	**34.3**	**61**	
5.1.1 Knowledge-intensive employment, %	25.3	54	
5.1.2 Firms offering formal training, %	40.2	33	
5.1.3 GERD performed by business, % GDP	0.2	54	
5.1.4 GERD financed by business, %	23.4	63	
5.1.5 Females employed w/advanced degrees, %	16.3	45	
5.2 Innovation linkages	**15.4**	**95**	
5.2.1 University-industry R&D collaboration†	33.5	89	
5.2.2 State of cluster development†	26.8	102	
5.2.3 GERD financed by abroad, % GDP	0.1	42	
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.0	101	
5.2.5 Patent families/bn PPP$ GDP	0.1	63	
5.3 Knowledge absorption	**41.1**	**40**	
5.3.1 Intellectual property payments, % total trade	2.1	12	●
5.3.2 High-tech imports, % total trade	11.7	22	●
5.3.3 ICT services imports, % total trade	2.2	30	●
5.3.4 FDI net inflows, % GDP	1.4	92	
5.3.5 Research talent, % in businesses	10.6	60	
Knowledge and technology outputs	**19.2**	**79**	
6.1 Knowledge creation	**13.0**	**70**	
6.1.1 Patents by origin/bn PPP$ GDP	0.4	87	
6.1.2 PCT patents by origin/bn PPP$ GDP	n/a	n/a	
6.1.3 Utility models by origin/bn PPP$ GDP	0.1	50	
6.1.4 Scientific and technical articles/bn PPP$ GDP	n/a	n/a	
6.1.5 Citable documents H-index	28.0	36	
6.2 Knowledge impact	**23.8**	**82**	
6.2.1 Labor productivity growth, %	-1.8	124	○ ◇
6.2.2 Unicorn valuation, % GDP	0.4	41	
6.2.3 Software spending, % GDP	0.3	47	
6.2.4 High-tech manufacturing, %	28.1	45	
6.3 Knowledge diffusion	**20.9**	**70**	
6.3.1 Intellectual property receipts, % total trade	0.4	31	
6.3.2 Production and export complexity	47.8	74	
6.3.3 High-tech exports, % total trade	0.6	86	
6.3.4 ICT services exports, % total trade	2.7	47	
6.3.5 ISO 9001 quality/bn PPP$ GDP	5.5	51	
Creative outputs	**30.3**	**51**	
7.1 Intangible assets	**39.7**	**42**	
7.1.1 Intangible asset intensity, top 15, %	69.0	21	
7.1.2 Trademarks by origin/bn PPP$ GDP	64.7	31	●
7.1.3 Global brand value, top 5,000	1.1	54	
7.1.4 Industrial designs by origin/bn PPP$ GDP	1.4	57	
7.2 Creative goods and services	**18.2**	**52**	
7.2.1 Cultural and creative services exports, % total trade	1.1	23	●
7.2.2 National feature films/mn pop. 15-69	6.9	13	●
7.2.3 Entertainment and media market/th pop. 15-69	3.4	47	◇
7.2.4 Creative goods exports, % total trade	0.2	76	
7.3 Online creativity	**23.4**	**56**	
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	3.4	64	
7.3.2 Country-code TLDs/th pop. 15-69	6.4	49	
7.3.3 GitHub commits/mn pop. 15-69	14.8	48	
7.3.4 Mobile app creation/bn PPP$ GDP	68.9	57	

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question, ◔ indicates that the economy's data are older than the base year; see appendices for details, including the year of the data, at https://www.wipo.int/gii-ranking. Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.

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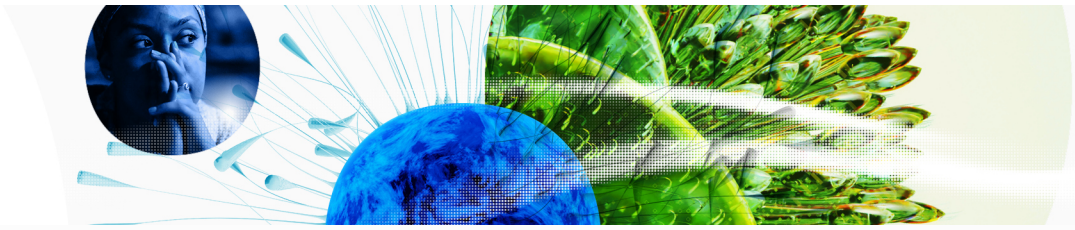

→ Data availability

The following tables list indicators that are either missing or outdated for Argentina.

> Argentina has missing data for three indicators and outdated data for ten indicators.

> Missing data for Argentina

Code	Indicator name	Economy Year	Model Year	Source
2.1.5	Pupil-teacher ratio, secondary	n/a	2020	UNESCO Institute for Statistics
4.1.3	Loans from microfinance institutions, % GDP	n/a	2021	International Monetary Fund, Financial Access Survey (FAS)
6.1.2	PCT patents by origin/bn PPP$ GDP	n/a	2022	World Intellectual Property Organization; International Monetary Fund

> Outdated data for Argentina

Code	Indicator name	Economy Year	Model Year	Source
2.1.1	Expenditure on education, % GDP	2020	2021	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2020	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2020	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.1.2	Domestic credit to private sector, % GDP	2017	2020	International Monetary Fund; World Bank and OECD GDP estimates.
4.2.1	Market capitalization, % GDP	2019	2020	World Federation of Exchanges; World Bank
5.1.1	Knowledge-intensive employment, %	2021	2022	International Labour Organization
5.1.2	Firms offering formal training, %	2017	2019	World Bank Enterprise Surveys
5.1.3	GERD performed by business, % GDP	2020	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	Females employed w/advanced degrees, %	2021	2022	International Labour Organization
5.3.5	Research talent, % in businesses	2020	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT

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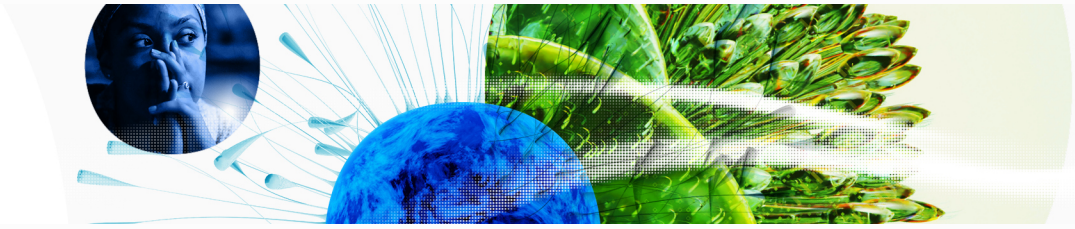

About the Global Innovation Index

- The Global Innovation Index (GII) is published by the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations.
- Recognizing that innovation is a key driver of economic development, the GII aims to provide an innovation ranking and rich analysis referencing around 130 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a "tool for action" for economies that incorporate the GII into their innovation agendas.

Source: Global Innovation Index Database, WIPO, 2023.

The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that include institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each consisting of three sub-pillars.